

## A COMPUTATIONAL INTERFACE DESIGN TO REENACT THE TRANSITORY MOMENTS OF THE IZMIR INTERNATIONAL FAIR

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### **Abstract**

Grouper is a computational interface design that supports researchers working with (visual) digital collections. The significance of Grouper is related to the positioning of researchers and the possibility it offers them to create, manage and visualise a collection within their research process. In this study, Grouper focuses on the ephemera collections of the Izmir International Fair (IIF) and asks: ‘How can digital tools help to trace, piece together and make sense of the design heritage of IIF, which includes a wide range of design practices and objects spread across nine decades?’. Working with IIF’s ephemera provides Grouper with a new lens that emphasizes the concepts of ‘assemblage’ and ‘collaboration’, allowing for the creation of previously unavailable content and narratives. The notions of transience and permanence are manifested in the assemblage of ephemera, the digitisation of collections, Grouper's flexible research process, and the persistence of transient objects and memories in new narratives.

**Keywords:** digital collections, visual history, ephemera, assemblage, collaboration.

### **1. Computational Interface Design for Digital Collections**

This chapter presents an overview of Grouper in its conceptual and practical aspects, the importance of early visualisation in the research process and transience in digital collections.

#### **1.1 An Overview of Grouper**

Grouper is a computational interface design, a web-based platform for researchers to work with (visual) digital collections. Grouper is innovative in that it

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encompasses both a conceptual approach and its manifestation in software form. It was initially introduced at the Design History Society (DHS) Annual Conference, Design and Time in 2016<sup>1</sup>. Since then, it has been developed iteratively through designing, testing, and researching within six different collections: the Turkish cigarette packages (2016), the brands of the Italian Central Archives of the State (2016), the Turkish and Middle Asian musical instruments (2019), the Turkish fanzines (2019), KulturPlant (2019), and Ankara balcony balustrades (2021).

The researchers who work with the collections of visual resources encounter inadequacies of typical data management and visualisation software programs (such as Word, Excel, Access, Filemaker) and face difficulties with complex computational tools that require more specific skills and understanding (such as Gephi, Pajek, d3js, Processing, Python). Lately, the digital collections of galleries, libraries, archives, and museums (GLAMs) have been released extensively through their websites in a way to encourage collection studies. However, in many cases, the poor, static, and limited display of collections on the GLAMs' websites discourages the personal contribution and experiencing of the data. Moreover, the projects and academic studies that have been produced on this matter can usually be characterised as non-inclusive and collection-specific digital platforms. The inadequacies and idiosyncrasies of these software programs, computational tools, websites and digital platforms point to a practical problem that affects the research process and its outcome. The problem also becomes conceptual, subjectivising, when the authoritarian and expert tone of the digital world undermines the role of the researcher by alienating, deskilling and silencing him or her. Grouper focuses on this design research problem. It aims to provide a better understanding of the key issues and criteria to enable researchers to better deal with collections of visual resources, and simultaneously develops a computational interface design to better address these issues and implement these criteria<sup>2</sup>.

Grouper approaches this practical and conceptual problem by following the lens of Object-Oriented Ontology (OOO). The OOO 'puts things at the centre of being'<sup>3</sup>. When the object/collection is at the centre, the authoritarian and expert tone of the digital world can be challenged and the researcher and the collection can be brought closer together. The OOO sustains that 'objects exceed what we know or ever can know about them'<sup>4</sup>. The collection can be observed through a variety of lenses that can describe a multitude of different properties of the object. Since none of these lenses is 'more true', it is never possible to access the inner selves of the objects, and all possible lenses are valid ways of seeing the object. The OOO is a strange mereology in which 'one object is simultaneously a part of another object and an independent object in its own right'<sup>5</sup>. Correspondingly, in Grouper the collection and its items are considered simultaneously one object and a multiplicity of independent objects.

The OOO is further elaborated by 'ecology' and 'criticality' approaches. In Grouper, every work of visualising collections is intrinsically composed of items and their environment. Items in collections are shaped in relational properties that are equally dynamic and multiply connected, as in any other ecological system. Grouper is a form of what Ratto calls 'critical making': a fusion between critical thinking and

making practices<sup>6</sup>. Criticality aims to ‘emphasise iterative and collaborative methods’ as a part of the development of the thinking/making process<sup>7</sup>. Bardzell and Bardzell delineate five ways in which critical design operates: perspective-shifting holistic approach, theory as speculation, dialogic methodology, emancipatory social role, and reflexivity, all of which shaped Grouper<sup>8</sup>.

The OOO lens and the ‘ecology’ and ‘criticality’ approaches are further elaborated and designed in Grouper by ‘translucency’, ‘surfacing middleware’, ‘witnessing’, ‘exploratory’, ‘dynamism’, ‘dialogic’, ‘acknowledging uncertainty’, ‘biological view’, and ‘cure’ esthetic qualities. These qualities belong to various theoretical and conceptual levels; in Grouper they are flattened due to their similar, multiply connected, and intertwined influence on shaping the computational interface. Based on this (conceptual and practical) background, it can be stated that ‘Grouper aims at enabling researchers to curate their dynamic and uncertain collections by witnessing through a translucent and dialogic emerging middleware to allow exploratory and critical practices’<sup>9</sup>.

## 1.2 Significance of Grouper: Visualisation as Research Making

An approach to ‘making research through data visualisation’ is found in literature under the name of ‘visual analytics’ and defined as such:

The basic idea of visual analytics is to visually represent the information, allowing the human to directly interact with the information, to gain insight, to draw conclusions, and to ultimately make better decisions. The visual representation of the information reduces complex cognitive work needed to perform certain tasks. People may use visual analytics tools and techniques to synthesise information and derive insight from massive, dynamic, and often conflicting data by providing timely, defensible, and understandable assessments<sup>10</sup>.

Visual analytics is often more related to scientific data rather than the visual resources/ephemera that this study deals with. In contrast, Everardo Reyes and Lev Manovich's cultural analytics approach, more similar to Grouper's approach, focuses on visual cultural data and states that ‘Cultural analytics involves designing exploratory methods and visualisation models appropriate for different kinds of visual cultural data; assembling cultural data sets; applying the methods to these data sets; and describing and interpreting the results’<sup>11</sup>. This definition emphasises the importance of both the visual dimension and the exploratory nature of the methodology.

A selection of projects and academic studies on the ‘visualising collections’ were reviewed and grouped according to the possibilities that computational interfaces provide to the audience: ‘Collection graphs’ provide a single view of the collection, ‘collection exhibits’ provide multiple views of the collection, ‘collection interfaces’ enable the audience to minorly intervene with the collection, and finally ‘collection (research) interfaces’ enable the audience to create and modify the collection.

Consequently, Grouper was positioned under the ‘collection (research) interfaces’ group<sup>12</sup>.

In defining ‘collection (research) interfaces’, Grouper is structured around two main actions: the initiation and update of a collection and the visualisation of a collection for study. These two actions are not sequential, but part of an iterative process in which visualisation and update of the collection feed each other. By facilitating this exchange between visualisation and update, the act of visualisation is shifted from the usual final stage of divulgation to an early stage of research. Grouper proposes a shift of visualising collections from a tool of ‘delivery’ to a tool of ‘discovery’<sup>13</sup>.

Visualisation plays a crucial role in contemporary research. Early visualisation offers researchers a range of opportunities for developing and curating a collection that might be difficult to consider or implement as the research approaches its conclusion. One of these opportunities is the ability to verify the distribution of data through a specific parameter, such as time, space, or typology. This can help researchers to identify outliers and suggest patterns, which can determine the direction of further research and even lead to early discoveries. By being aware of these aspects at an early stage of the research, researchers can check the validity, presence/absence of data and potentially identify gaps in their knowledge or the need for further investigation. For example, if there are no items available for a particular year in a collection, it is important to investigate the reason for this absence. Often, these distributions are the result of specific interests at the source of the database or the consequences of previous dedicated studies. By identifying these patterns early on, researchers can make informed decisions about their research approach and ensure that their findings are robust and accurate as well as reach a better understanding of the topic at hand.

By 2021, Grouper consists of nine views that are ‘index card’, ‘data table’, ‘catalogue’, ‘timeline’, ‘grouping’, ‘composition’, ‘geographical’, ‘radial tree’, and ‘timeline with groups’. Each view can be opened as a frame that can be scaled, moved, overlapped and juxtaposed inside the canvas and the same view can also be opened simultaneously in multiple frames. For example, it is possible to have three frames of index cards open simultaneously in order to compare their properties or to have two frames one showing the data table and the other showing the visualisations. Thanks to the adoption of different views and constantly updatable data, Grouper supports research that is explorative and iterative. The possibility to cycle through different views provides the researcher with more chances to discover patterns that relate items, outliers, anomalies or biases in the collection. These discoveries can lead not only to the conclusion of the research but also to a new cycle of updating the collection. At any time, the researcher is free to add new items, import other collections as new sources and dynamically observe visualisations updated live to facilitate the recognition of patterns<sup>14</sup>.

### 1.3 Transience in Digital Collections

Digital collections represent the struggle between permanence and transience, especially in terms of preservation and accessibility issues of knowledge. As one of

their first aims, digital collections preserve the knowledge that is being included. Through this process, it is ensured that the ‘...information contained within fragile, organic materials will still be viewable to future generations’<sup>15</sup>, or at least, this can be achieved by putting in place all the necessary systems to prevent the technological obsolescence of the hardware and software employed<sup>16</sup>. One of the biggest concerns is technological obsolescence, where the hardware and software used to create and store digital items becomes outdated or incompatible with newer technologies. To overcome this challenge, it is crucial to adopt robust and scalable systems that can adapt to new technologies and standards. Another challenge of digital collections is to ensure their accessibility to a wide audience. While digitization can increase access to collection items, it is important to address access barriers such as format conflicts between different operating systems and digital devices. This requires the development of user-friendly interfaces and platforms that can support diverse user needs and preferences.

Creating a digital collection requires many considerations. In this study, based on Grouper's conceptual and practical approach, digital collections are considered inherently transient. Instead of aiming for a static, permanent collection, it is proposed to create a continually evolving and changing database.

Digital collections are initiated, assembled, modified, improved, and updated by researchers during the research process. Individual items are iteratively enriched with further information, leading to constant changes in both micro and macro scales. Although the instability, lack of consistency, and impermanence of the database are generally viewed as negative aspects, in this study, the transience of the database is a quality that provides researchers with the freedom to modify and update the collection as needed.

The transience of the digital collection is associated with the weakening of the need for authority. Archives traditionally assume a position of authority, aiming to preserve the past and convey the truth, or in Mbembe words: ‘Archives are the product of a process which converts a certain number of documents into items judged to be worthy of preserving and keeping in a public place, where they can be consulted according to well-established procedures and regulations’<sup>17</sup>. However, in this study, Grouper’s approach acknowledges the process of research and provides researchers with the opportunity to rectify and update incorrect information as new discoveries are made. In relation to the concept of assemblage, ‘an emphasis [...] on fragility and provisionality; the gaps, fissures and fractures that accompany processes of gathering and dispersing’ can also be mentioned<sup>18</sup>. This approach offers researchers the flexibility to add new categorization labels or render outdated information obsolete as they gain a deeper understanding of the subject. As a result, the collection becomes a dynamic resource that evolves with the research.

Briefly, Grouper’s approach to digital collections acknowledges the evolving nature of research and the impermanence of knowledge. By creating a database that is in a constant state of becoming, Grouper provides researchers with the flexibility and freedom to modify and update the collection as needed, resulting in a more

accurate and nuanced representation of the subject matter. The transience of the research process enables more permanent outcomes to be produced.

## 2. Izmir International Fair

This chapter presents the historical background of the Izmir International Fair, its relevance to Turkish and International design culture and the significance of Fair ephemera.

### 2.1 Historical Background

The Izmir International Trade Fair defines a momentous episode in Izmir's history. The trade fair was established during the 1920s in the aftermath of the Great Fire of Izmir. The Izmir Fair was imagined as a gathering of manufacturers, commercial interests, officials and members of the ordinary public. It defined a high-profile occasion that would help maintain and further bolster Izmir's place in both national and international trade (Fig. 1).



Fig. 1. Izmir International Fair, Lozan Gate of Kültürpark, 1936.  
 “Fuar Lozan Kapısı 75 yaşında,” *Kent-Yaşam*.

The Izmir International Trade Fair started out relatively small (and under a different name) with exhibits of agricultural and manufactured products from different parts of the country. But it took on a truly international character in 1936 when it moved to its permanent location, Kültürpark. This was a public park built on land cleared by the Great Fire and it was modelled on a Soviet precedent, the Gorky

Part of Culture and Rest in Moscow (completed in 1928). The following years foreign participation grew steadily. So did the number of visitors attending the month-long event. By 1953, that number rose to 1.7 million people, (and to put this into perspective, this was) in a country of just above 20 million people<sup>19</sup>.

Today the International Fair and the public park of Kültürpark (where the fair was continuously held since 1936) have almost become synonymous in public consciousness. One was meant to rehabilitate the city's war-torn economy, while the other was meant to regenerate the fire zone. Together they defined a podium upon which the achievements of the young Turkish Republic could be displayed. Additionally, they were thought to provide 'instruction through recreation' for the members of the general public who would be exposed to modern lifestyles, new industrial products and processes, and advanced technologies. Indeed, the celebration of technology and industrial development were central to this festive month-long event<sup>20</sup>.

## 2.2 Transience: Ephemera of the Fair

Architecture and design were at the forefront of the Izmir Fair. Each year a temporary city rose (in Kültürpark) on the exhibition grounds, with numerous pavilions commissioned for state enterprises and participating nations. Most were dismantled after the event or survived for a few more years until they were replaced by newer constructions. The changing designs of this temporary city is extremely well documented with catalogues, dissertations and scholarly publications keeping track of changing architectural debates over the nine decades the Izmir Fair was continuously held<sup>21</sup>.

Although architecture and design were at the forefront of the Izmir Fair, it cannot be said for the thousands of everyday objects, (graphic) surfaces, promotional items and services designed specifically for the occasion of the trade fair or put on display at the fair. The Izmir Fair had its finger on the pulse of Turkish design culture. Industrially produced consumer goods, posters, cigarette packages, cologne bottles, everyday textiles, exhibition brochures, souvenir items of all kinds... Today there is no comprehensive archive of designed objects directly related with or exhibited at the Izmir Fair. They are all scattered across private collections, online auction sites, Facebook pages, and a few public collections. Most survive only in photographs or printed materials, and a great many are undated. Izmir Fair: the Showcase of the Republic (1933-1938) exhibition by Aybala Yentürk (2012), Fair's Painters: Traces of Graphic Design in the History of Izmir Fair exhibition by Ömer Durmaz (2017), and Fair Letterpress: An Urban Memory Project for Izmir International Fair exhibition by Emre Yıldız (2020) stand out as exhibitions that focus on the ephemera of the Fair and contribute to the design heritage (Fig. 2).



Fig. 2. Fair Letterpress: An Urban Memory Project for Izmir International Fair exhibition by Emre Yıldız, 2020. "Fuar Matbaası," *Facebook page*.

This transient memory of the Fair that is embodied in the ephemera comes forward as a subject matter for this study and the following questions arise: 'How to trace and piece together this design heritage? Can digital tools (Grouper) help us make sense of such wide-ranging design practices and objects spread across nine decades?'

### **3. Grouper Adopting the Ephemera Collections of the Izmir International Fair**

Working with the ephemera of the Izmir International Fair requires gathering a variety of ephemera collections from collectors, social media groups, online archives, and antiquity/ephemera online shops. Since Grouper adopted only individual collections previously, this multiplicity of collections and collectors has propelled new conceptual and practical additions to Grouper in a way that 'assemblage' and 'collaboration' concepts come forward. This chapter presents the gathering of Fair's digital ephemera collections and the concepts of 'assemblage' and 'collaborative research making'.



### 3.1 Gathering the Ephemera Collections of the Izmir International Fair

Our intention in this study was to follow an undirected, open, almost organic approach, experimenting with the data at hand and developing the research as a process in which we know the starting point but not where these ephemera will lead us.

To build the assemblage of collections at the centre of this study, we began by uploading a selection of 71 cigarette packages from Tunca Varış's collection to Grouper. These packages were produced, distributed, and sold as promotional and souvenir items during the annual Fair. On their own, the packages present a partial and, in many ways, limited version of the Izmir International Fair compared to the ephemera produced and circulated during the Fair as a whole.

Consequently, to enrich this initial collection, we operated in two directions: first with a collectors' selection and second with online research. The collectors' selection is what people shared with us directly upon our request to respond to the initial collection (the cigarette packages). Their visual response consisted of a selection from their own collections that could be useful within our study. We contacted and received collections from: Ömer Durmaz (personal collection of matchbox graphics), Emre Yıldız (personal collection of promotional booklets), and Nergiz Yiğit (from Haluk Sağlamtimur's collection of matchboxes).

Through online research we explored three different sources: posts from social media groups, online archives and online stores of antiques and ephemera. We scanned the Internet for social media groups that might offer ephemera related to our topic and found mostly nostalgic posts on Facebook celebrating Izmir and the history of the Fair, as well as Pinterest boards collecting memorabilia. Among the institutions' publishing online archives, we collected ephemera in Turkish and English that responded to the keywords 'Izmir Fair', 'Izmir International Fair' at Apikam (the Izmir City Archive and the Museum) and Salt (Culture, Art and Research Institution). Finally, in a similar approach, we reviewed the online stores of book and antique shops, as well as auction houses, where we found abundant content. We deliberately avoided architecture related items as it is the focus of many other researchers and has a different degree of transience/ephemerality. Although pavilions are shorter-lived than other architectural buildings, they are more permanent than the annual renewal and production of the ephemera analysed in this paper.

### 3.2 Assemblage of the Collections

The relation between collections and assemblage is not a new one and has strong roots in the work of Rodney Harrison, especially in relation to critical heritage studies<sup>22</sup>. Harrison states that:

Heritage is not a passive process of simply preserving things from the past that remain, but an active process of assembling a series of objects, places and

practices that we choose to hold up as a mirror to the present, associated with a particular set of values that we wish to take with us into the future<sup>23</sup>.

This active process of assembling different objects is essential to grasp a rich object of study such as the one of the Izmir International Fair. For such a reason, in this study we started to assemble not only individual items/ephemera but sets of them from the collectors. Among the collectors we contacted, each was interested particularly in individual ephemera types (i.e., cigarette packages, leaflets etc.). Bringing them together meant re-establishing a dialogue between these ephemera that were originally conceived within the same design project, the design of that year's Izmir International Fair, but were separated from each other due to the different interests of collectors (Fig. 3.).

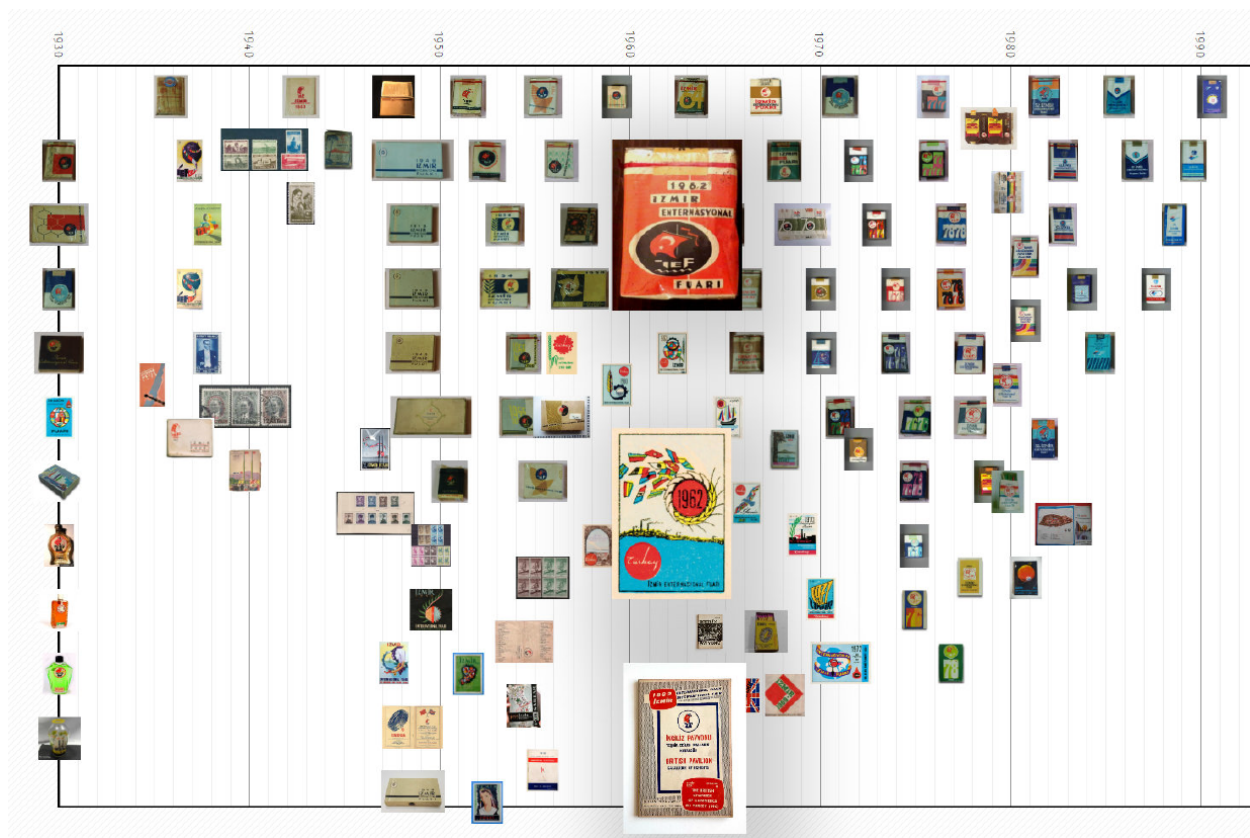


Fig. 3. Grouper: A cigarette package, a matchbox and a booklet from 1962.

Consequently, it is logical to treat the collections not as separate entities but rather as part of a larger whole. Each addition contributes to a unique mesh-up of collections, creating a new entity that we refer to as an 'assemblage' or 'object-fair'. Our use of the term 'assemblage' is based on Delanda's theory, which draws on the work of Deleuze and Guattari. According to Delanda, an assemblage is not simply a collection of diverse components but a new entity with emergent properties that are

not present in its individual components. It is also made up of networks of relationships established among the components<sup>24</sup>.

By characterising this ‘collection of collections’ as an assemblage, in this study we see it as both a unity and a multiplicity. As McFarlane and Anderson highlights an ‘assemblage appears as a specific form of relational thinking that attends to the agency of wholes and parts, not one or the other’ and furthermore, ‘thinking with assemblage is also in part about the play between stability and change, order and disruption’<sup>25</sup>.

Within this play, Grouper facilitates the creation of connections and relationships among the items/ephemera in the assemblage through visual association, tagging, and categorization. Coherently with the archival attitude, Grouper helps to establish an order and makes what was previously scattered and decontextualized part of a cohesive whole. But at the same time, the constant recreation, updating and instability of the assemblage and the opportunity to observe it from various views challenges researchers to explore rather than be guided, to identify new information rather than adhere to pre-existing schemes (Fig. 4).

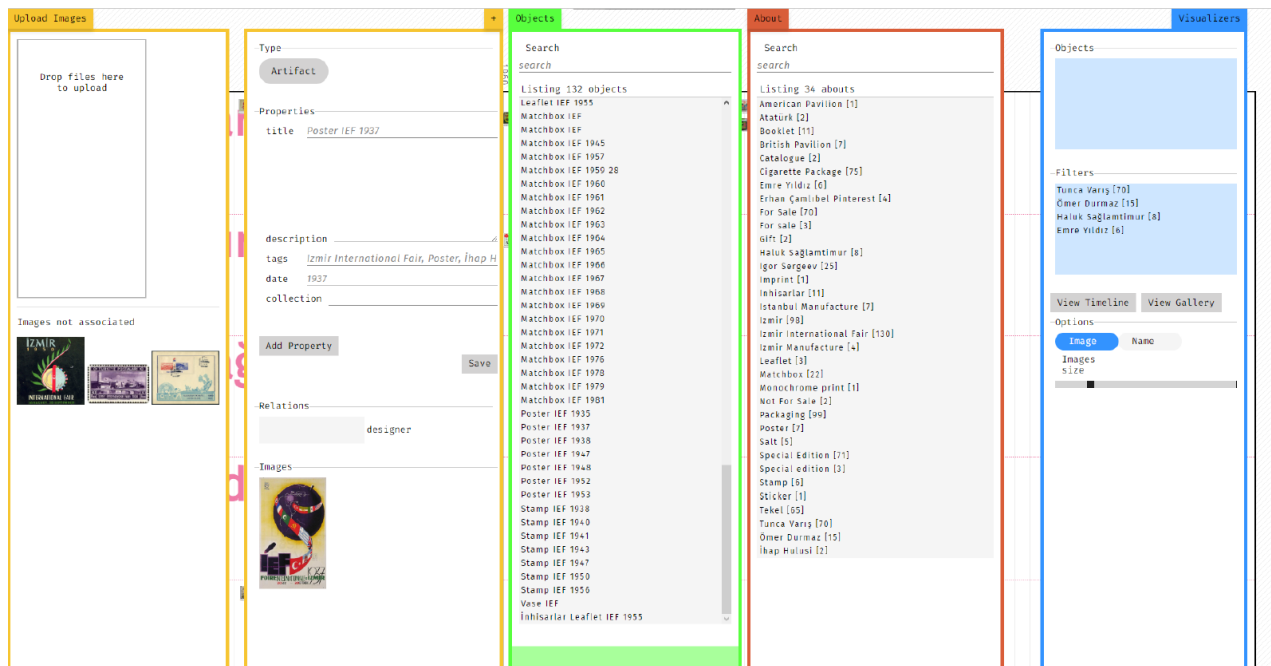


Fig. 4. Grouper: Information update, tagging, categorization.

Among the possible nine views provided by Grouper, the ‘timeline with groups’ view allows researchers to compare and juxtapose items/ephemera based on the keywords they are related to (Fig. 5). The interactive interface enables researchers to quickly establish and regenerate this view, facilitating exploration and construction of new narratives. Through these features, Grouper empowers researchers to create

and manage collections within their research process, encouraging reiteration and facilitating focus on the construction of the research process as a whole.

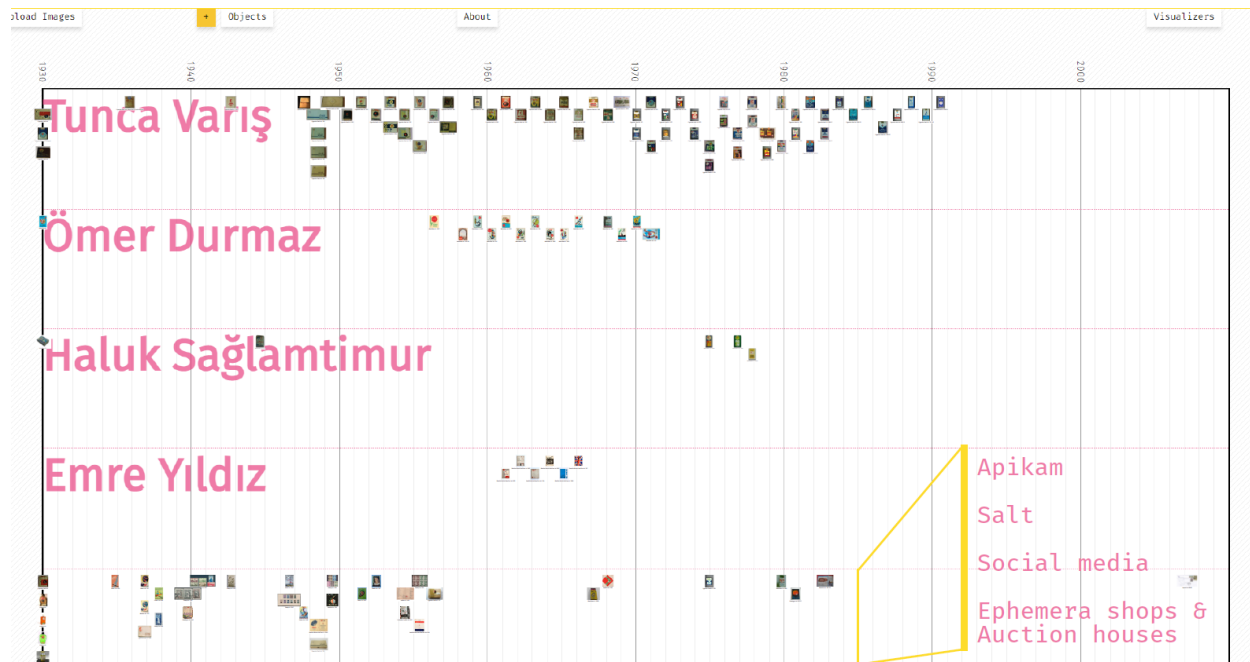


Fig. 5. Grouper: View of ‘timeline with groups’.

### 3.3 Collaborative Research Making

The development of Grouper for the Izmir International Fair aimed to overcome the conundrum posed by Manovich by confronting two research universes, the humanities and computer science:

...we have two research universes that often use the same computational methods but apply them to different cultures. On the humanities side, we have the past that stretches into hundreds or even thousands of years. On the computer science side, we have the present starts in the beginning of the 21st century. On the humanities side, we have artifacts created by professional elites. On the computer science side, we have artifacts and online behavior by everybody else<sup>26</sup>.

In this study, we aim to bridge the two universes by connecting the expertise of the researcher with the contribution of the community, or more specifically the social media crowd of collectors. The emphasis on ‘everybody else’ is important as in the case of the ephemera research on the Izmir International Fair, where we received contributions from social media communities as well as institutions such as Apikam and Salt. While our aim in Grouper has always been to empower researchers, in this study/iteration/update of Grouper, we aimed to expand community engagement as a

data source and collaboration of researchers on the platform, and to create a new research community. This participation and collaboration of multiple people in the research process, as well as the convergence of multiple collections, defined both individual and complementary assemblages.

By enabling researchers to create and manage collections, Grouper provides an environment for multiple people to collaborate, ensuring that collections are constantly evolving, improving, and becoming more comprehensive.

As mentioned earlier, while Grouper was conceived with the researcher in mind, the previous iteration/version of the interface design somehow provided tools for a uniform collection. Furthermore, despite collaboration being indeed an aim of the project, early iterations/versions of Grouper were developed as a tool for individuals rather than groups. Each researcher had their own collection and developed, studied, and visualised it. In this case, when we started planning the inclusion of multiple collections, it also made sense to allow individual collectors and other researchers to interact and contribute to the platform in a rich manner.

The type of interaction allowed to modify the collection assemblage can be described by three actions: addition, contribution, and correction. People registered in Grouper can add a new item, add information consisting of a tag and a corresponding description to an existing item, or suggest a correction to existing information. These three main actions for editing the collection assemblage are further extended by the possibility to create a visualisation and comment on this visualisation. Each visualisation acts as a new object having a selection of items/ephemera visible and a particular mapping. When creating a visualisation object, the researcher can start by selecting some filtering criteria to include or exclude related items/ephemera. For example, one researcher might want to start by visualising a timeline of booklets and packaging, to which he or she can later add or remove items. This initial visualisation can then be enriched by adding comments to it, constituting a shared discussion space among researchers. It is also possible to add links and references to make this space an appropriate platform for research.

#### **4. Conclusion**

Focusing on the Izmir International (Trade) Fair and ephemera collections that define an important period in Izmir's history, this study and Grouper ask: 'How can digital tools help to trace, piece together and make sense of the design heritage of the Izmir International Fair, which includes a wide range of design practices and objects spread across nine decades?'

Compared to the initial collection of cigarette packages of Izmir International Fair, and the scattered information and visuals of other ephemera, the new object-Izmir Fair database presented in Grouper offers previously unavailable clues for future research and possible studies. It allows the emergence of new features and potentials. We can list a few of them as follows: Bringing together scattered ephemera, confirming information through repetition and redundancy, identifying the dates through visual and temporal association, creating a collective narrative, observing style and thematic cycles, sharing a cultural value, transient organisation as a process rather than a product. These features and potentials do not offer a

conclusion per se but demonstrate how Grouper, the computational interface, allows the creation of a content and narrative that was not previously available. Through the interface we can see a Fair both as it was before and through a new lens. A new loose, flexible, modular structure makes this object-Fair unstable, undefined, anti-authoritative and, in conclusion, transient. This transience of the research process enables more permanent outcomes to be produced within new narratives.

## NOTES

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